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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,745	08/10/2001	Haruhisa Kato	35. C15694	6653

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EXAMINER

CAI, WAYNE HUU

ART UNIT PAPER NUMBER

2617

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/925,745

Applicant(s)

KATO, HARUHISA

Examiner

Wayne Cai

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-30 is/are pending in the application.
- 4a) Of the above claim(s) 29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Claims 18-28 are pending.

### *Response to Arguments*

1. Applicant's arguments filed December 29, 2005 have been fully considered but they are not persuasive.

The Applicant argues on page 9, third full paragraph that the cited references fail to teach or suggest turning on a first power supply circuit and turning off a second power supply circuit in accordance with a first state of a wireless communication, and turning off the first power supply circuit and turning on the second power supply circuit in accordance with a second state of the wireless communication.

The Applicant further states at second full paragraph on page 10 that Park teaches or suggests that the DC/DC converter remains in an "on" state regardless of the mode (i.e., reception or transmission).

The Examiner, however, respectfully disagrees with statements above because the Applicant does not specifically define or recite in the claim exactly what the first and the second power supply are. Therefore, it is the Examiner's position to give the broadest reasonable interpretation of the claim language. The Examiner previously interpreted that **a first power supply** was the regulator 76 (see Park, figure 2), and **a**

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**first state** was the transmission state of the wireless communication means. Also, a **second power supply** was regulators 72 and 74, and a **second state** was the reception state of the wireless communication means. In accordance with the interpretation, it is clear to one skilled in the art that Park does teach or suggest that a switching means (fig. 2, "SW") for turning on the first power supply means (i.e., "SW" is in closed position to turn on the regulator 76) in accordance with a first state (i.e., transmission mode) of said wireless communication means. Also, Park teaches or suggests that turning off the first power supply (i.e., "SW" is in an opened position to turn off the regulator 76), and turning on the second power supply (i.e., to turn on regulators 72 & 74) in accordance with a second state (i.e., reception state) of wireless communication means.

Since, Park does not specifically teach or suggest a feature of turning off the second power supply means in accordance with a first state of said wireless communication means. It is therefore respectfully submitted the disclosure of Tsukuda to cure deficiencies. The Applicant once again states at second full paragraph on page 10 that Tsukuda is seen to disclose that a primary battery 5 and secondary battery 4 remain in an "on" state, which is not seen to teach or suggest the claimed feature. The Examiner respectfully disagrees with the statement because the Examiner previously considered the DC/DC converter (i.e., a second power supply) to be turned off in accordance with a first state (i.e., a transmission state or radio section 1 is in "on" state, see figures 6 & 7). Therefore, it was appropriate to combine Park and Tsukuda together to arrive at the present invention.

In response to arguments of claims 23 and 26, the Examiner respectfully disagrees with statements set forth on pages 11 and 12 because the Examiner considered regulator 76 as a first power supply, and regulators 72 & 74 as a second power supply. Therefore, in a first state (i.e., transmission state), the switch is in closed position, and regulator 76 is in contact, and in a second state (i.e., reception state), the switch is in opened position, and regulators 72 & 74 regulate voltages, which in turn having different current supply capacity.

Thus, the Examiner still upholds the rejections.

### ***Election/Restrictions***

2. Claims 29, and 30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 29, 2005.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 23-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Park (US 6,374,127 B1).

**Regarding claim 23**, Park discloses a wireless communication apparatus comprising: wireless communication means for transmitting a first wireless signal to a communication partner and receiving a second wireless signal from the communication partner (communication means such as a receiver, a transmitter, a baseband signal processor, Fig. 2; Fig. 5); a plurality of power supply means for supplying a power to said wireless communication means (A battery, voltage controllers, voltage regulators, DC/DC converters, col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1 and 2), wherein each of said plurality of power supply means has a different current supply capacity (e.g., each regulator outputting different supply voltages (3.3 V, 3.6 V) hence they have different current supply capacity) (figure 2); and switching means for switching at least one of said plurality of power supply means in accordance with the second wireless signal received by said wireless communication means (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX\_AGC, TX\_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission and reception modes; col. 2, lines 32-43, col. 3, lines 49-62; col. 4, line 34 - col. 5, line 15).

**Regarding claim 24**, and as applied to claim 23, Park discloses the aforementioned apparatus, wherein said switching means switches said at least one of said plurality of power supply means in accordance with reception of the second

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wireless signal for permitting transmission of the first wireless signal from said wireless communication means (Applying the appropriate voltage for transmission mode in accordance with a signal TX\_MODE; col. 4, lines 44-58).

**Regarding claim 25**, and as applied to claim 23, Park discloses the aforementioned apparatus, wherein said switching means switches said at least one of said plurality of power supply means in accordance with the second wireless signal received by said wireless communication means and existence of transmission data to be transmitted by said wireless communication means (Wherein a TX AGC voltage is used to detect a change in transmission power, which increases in proportion with the transmission power in transmission mode, thereby associating an increase in transmission power with the data transmission; col. 5, lines 1-15; col. 6, lines 1-15).

**Regarding claim 26**, Park disclose a method of supplying power to a wireless communication device which transmits a first wireless signal to a communication partner and receives a second wireless signal from the communication partner (communication means such as a receiver, a transmitter, a baseband signal processor; Fig. 2, Fig. 9, comprising the steps of: providing power from a plurality of power supplies (A plurality of power supplies such as battery voltage controllers, voltage regulators, DC/DC converters, and switching means for switching said plurality of power supplies, such as transistors (Q, SW) and signal responses (TX\_AGC, TX\_MODE), col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1-3), wherein each of said plurality of power supplies has a different current supply capacity (e.g., each regulator outputting different supply voltages (3.3 V, 3.6 V) hence they have different current supply capacity) (Figure 2);

receiving the second wireless signal from the communication partner (Applying the appropriate voltage for transmission mode in accordance with a signal TX\_MODE; col. 4, lines 44-58); and switching power from at least one of the plurality of power supplies in accordance with the second wireless signal received in said receiving step (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX\_AGC, TX\_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission and reception modes; col. 2, lines 32-43; col. 3, lines 49-62; col. 4, line 34 through col. 5, line 15).

**Regarding claim 27**, and as applied to claim 26, Park discloses the aforementioned method, wherein said switching step switches said at least one of the plurality of power supplies in accordance with reception of the second wireless signal for permitting transmission (Applying the appropriate voltage for transmission mode in accordance with a signal TX\_MODE; col. 4, lines 14-58).

**Regarding claim 28**, and as applied to claim 26, Park discloses the aforementioned method, wherein said switching step switches said at least one of the plurality of power supplies in accordance with the second wireless signal received in said receiving step and existence of transmission data to be transmitted (Wherein a TX\_AGC voltage is used to detect a change in transmission power, which increases in proportion with the transmission power in transmission mode, thereby associating an increase in transmission power with the data transmission; col. 5, lines 1-15; col. 6 lines 1-15).



***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US 6,374,127 B1) in view of Tsukuda (US 6,223,025 B1).

**Regarding claim 18**, Park discloses a wireless communication apparatus (col. 1, lines 15-20; col. 3, lines 7-9; Figs. 1, 2 and 5) comprising: wireless communication means (communication means such as a receiver, a transmitter, a band signal processor', Fig. 2 & Fig. 5); first and second power supply means for supplying a power to said wireless communication means (A battery, voltage controllers, voltage regulators, DC/DC converters, col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1 and 2); and switching means for turning on said first power supply means (e.g., regulator 76) (Fig. 2) in accordance with a first state of said wireless communication means (i.e., transmission mode) (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX\_AGC, TX\_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission or reception modes; col. 2, lines 32-43, col. 3, lines 49-62; col. 4, line 34 thru col. 5, line 15), and for turning off said first power supply means (e.g., regulator 76) and turning on said second power supply means (DC/DC

converter 20 and regulators 72, 74) (figure 2) in accordance with a second state of said wireless communication means (i.e., reception mode) (col. 2, lines 32-43; col. 3, lines 49-62; col. 4, line 34 thru col. 5, line 15), wherein power from the first or second power supply means turn on by said switching means is supplied to said wireless communication means (wherein an corresponding output voltage is supplied to the mobile communication terminal in both reception and transmission modes, thereby supplying voltage to the transmitter and the receiver; col. 2, lines 24-42; col. 4, lines 22-27).

However, Park does not specifically disclose turning off said second power supply means in accordance with a first state of said wireless communication means.

In the same field of endeavor, Tsukuda clearly disclose a wireless communication in which a second power supply means (i.e., DC/DC converter 3) (figures 6 and 7) is turned off in accordance with a first state (i.e., radio section 1 is ON) of a radio selective calling receiver (figures 6 and 7 and column 5 line 6 - column 6 line 19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to turn off the second power supply in accordance with a first state of the wireless communication means as taught by Tsukuda in the apparatus disclosed by Park for the purpose of efficient performance.

**Regarding claim 19**, and as applied to claim 18, Park, as modified by Tsukuda, discloses the aforementioned apparatus, wherein said first and second power supply means supply the power originated from a common power source (Wherein power

supply elements such as DC/DC converters and voltage regulators are coupled to a common power source such as battery; Figs. 1 and 2, item 10).

**Regarding claim 20**, and as applied to claim 18, Park, as modified by Tsukuda, discloses the aforementioned, wherein said first power supply means comprises a series regulator 76 (Figure 2) and said second power supply means comprises a DC/DC converter (Fig. 1, items 18 and 22; Fig. 2, item 20).

**Regarding claim 21**, Park communications (A plurality of power supplies such as battery, voltage discloses a method of supplying a power for wireless controllers, voltage regulators, DC/DC converters, and switching means for switching said plurality of power supplies, such as transistors (Q, SWI and signal responses (TX\_AGC, TX\_MODE), col. 1, lines 26-46; col. 3, lines 7-21; Figs. 1-3), comprising the steps of detecting a first or second state of the wireless communication (Detecting a transmission and a reception mode according to an active or inactive response from a signal TX\_MODE; col. 4, lines 34-58)., turning on a first power supply circuit (e.g., regulator 76) (Fig. 2) in accordance with the first state of the wireless communication (i.e., transmission mode) (Wherein the mobile communication terminal comprises selecting means such as transistors and responses from signals (TX\_AGC, TX\_MODE) whose voltage state vary according to a transmission or reception mode, subsequently selecting the appropriate voltage according to said transmission and reception modes; col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15); turning off the first power supply circuit (regulator 76) and turning on the second power supply circuit (DC/DC converter 20) in accordance with detecting the second state of the wireless

communication (col. 2, lines 32-43; col. 3, lines 49-42; col. 4, line 34 thru col. 5, line 15); and supplying power for the wireless communication from the first or second power supply circuit turn on in accordance with detecting the first or second state of the wireless communication (wherein an corresponding output voltage is supplied to the mobile communication terminal in a reception or a transmission modes, thereby supplying voltage to the transmitter or the receiver; col. 2, lines 24-42; col. 4, lines 22-27).

However, Park does not specially disclose turning off said second power supply circuit in accordance with a first state of said wireless communication means.

In the same field of endeavor, Tsukuda clearly disclose a wireless communication in which a second power supply means (i.e., DC/DC converter 3) (Figs. 6 and 7) is turned off in accordance with a first state (i.e., radio section 1 is ON) of a radio selective calling receiver (figures 6 and 7 and column 5 line 6 - column 6 line 19).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to turn off the second power supply in accordance with a first state of the wireless communication means as taught by Tsukuda in the apparatus disclosed by Park for the purpose of efficient performance.

**Regarding claim 22**, and as applied to claim 21, Park, as modified by Tsukuda, discloses the aforementioned method, wherein the first and second power supply circuits for supplying the power originated from a common power source for the wireless communications (Wherein power supply elements such as DC/DC converters and

voltage regulators are coupled to a common power source such as battery; Figs. 1 and 2, item 10).

### ***Conclusion***

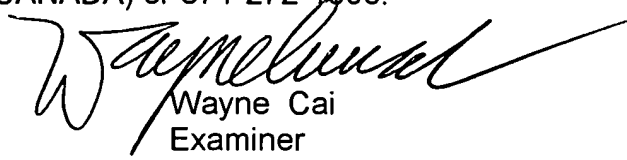
7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Wayne Cai  
Examiner  
Art Unit 2617



ELISEO RAMOS-FELICIANO  
PRIMARY EXAMINER